

"HAWAII ADMINISTRATIVE RULES
 TITLE 11
 DEPARTMENT OF HEALTH
 CHAPTER 54
 WATER QUALITY STANDARDS

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Historical Note: Chapter 11-54 is based substantially on Public Health Regulations, Chapter 17-A, Water Quality Standards, Department of Health, State of Hawaii. [Eff 5/25/74; am 12/7/79; R 11/12/82.]

§11-54-01 Definitions. As used in this chapter:

"Ambient conditions" means the water quality conditions that would occur in the receiving waters if these waters were not influenced by the proposed new human activity.

"Best degree of treatment or control" means that treatment or control which is required by applicable statutes and regulations of the State of Hawaii and the Federal Water Pollution Control Act, as amended, (33 USC 1251, et seq.) or which is otherwise specified by the director considering technology or management practices currently available in relation to the public interest.

"Brackish waters" means waters with dissolved inorganic ion concentrations (salinity) greater than 0.5 parts per thousand, but less than thirty parts per thousand.

"Coastal waters," as defined by §342D-1, HRS, means "all waters surrounding the islands of the State from the coast of any island to a point three miles seaward from the coast, and, in the case of streams, rivers, and drainage ditches, to a point three miles seaward from their point of discharge into the sea and includes those brackish waters, fresh waters and salt waters that are subject to the ebb and flow of the tide."

"Department" means department of health, State of Hawaii.

"Director" means the director of health, State of Hawaii, or the director's duly authorized agent.

"Fresh waters" means all waters with dissolved inorganic ion concentrations of less than 0.5 parts per thousand.

"Saline or salt waters" means waters with dissolved inorganic ion concentrations greater than thirty parts per thousand.

"State waters", as defined by §342D-1, HRS, "means all waters, fresh, brackish, or salt around and within the State, including, but not limited to, coastal waters, streams, rivers, drainage ditches, ponds, reservoirs, canals, ground waters, and lakes; provided that drainage ditches, ponds, and reservoirs required as part of a water pollution control system are excluded." This

chapter applies to all State waters, including wetlands, and excluding the following: groundwater; and ditches, flumes, ponds and reservoirs required for water pollution control or used solely for irrigation, so long as they do not discharge into any other State waters. The State of Hawaii has those boundaries stated in Haw. Const. art. XV, §1. [Eff 11/12/82; am and comp 10/6/84; am and comp 04/14/88; am and comp 01/18/90; am and comp OCT 29 1992] (Auth: HRS §§342D-1, 342D-4, 342D-5) (Imp: HRS §§342D-4, 342D-5)

§11-54-01.1 General policy of water quality antidegradation. Waters whose quality are higher than established water quality standards shall not be lowered in quality unless it has been affirmatively demonstrated to the director that the change is justifiable as a result of important economic or social development and will not interfere with or become injurious to any assigned uses made of, or presently in, those waters. [Eff and comp 10/6/84; am and comp 04/14/88; am and comp 01/18/90; am and comp OCT 29 1992] (Auth: HRS §§342D-4, 342D-5) (Imp: HRS §§342D-4, 342D-5)

§11-54-02 Classification of state waters. (a) State waters are classified as either inland waters or marine waters.

(b) Inland waters.

- (1) All inland waters are either fresh waters, brackish waters, or saline waters;
- (2) All inland fresh waters are classified as follows, based on their physical characteristics, ecological systems, and other natural criteria:
 - (A) Streams (perennial or intermittent);
 - (B) Springs and seeps, natural lakes, and reservoirs;
 - (C) Elevated wetlands;
 - (D) Low wetlands;

- (3) All inland waters which are brackish waters or saline waters are classified as follows, based on their physical characteristics, ecological systems, and other natural criteria:

- (A) Coastal wetlands;
- (B) Estuaries;
- (C) Anchialine pools; and
- (D) Saline lakes

(c) Marine waters.

- (1) All marine waters are either embayments, open coastal, or oceanic waters;
- (2) All marine waters which are embayments or open coastal waters are also classified according to the following bottom subtypes:
 - (A) Sand beaches;
 - (B) Lava rock shorelines and solution benches;
 - (C) Marine pools and protected coves;
 - (D) Artificial basins;
 - (E) Reef flats; and
 - (F) Soft bottoms. [Eff 11/12/82; am and comp 10/6/84; am and comp 04/14/88; am and comp 01/18/90; am and comp OCT 29 1992] (Auth: HRS §§342D-4, 342D-5)
(Imp: HRS §§342D-4, 342D-5)

§11-54-03 Classification of water uses. (a) The following use categories in this section classify inland and marine waters for purposes of applying the standards set forth in this chapter and for the selection or definition of appropriate quality parameters and uses to be protected in these waters. Existing stormwater run-off into inland and marine waters shall be allowed provided it meets the basic water quality standards specified in §11-54-04(a).

(b) Inland waters.

(1) Class 1.

It is the objective of class 1 waters that these waters remain in their natural state as nearly as possible with an absolute minimum of pollution from any human-caused source. To the extent possible, the wilderness character of these areas shall be protected. Waste discharge into these waters is prohibited. Any conduct which results in a demonstrable increase in levels of point or nonpoint source contamination in class 1 waters is prohibited;

(2) Class 1.a.

The uses to be protected in class 1.a waters are scientific and educational purposes, protection of breeding stock and baseline references from which human-caused changes can be measured, compatible recreation, aesthetic enjoyment, and other nondegrading uses which are compatible with the protection of the ecosystems associated with waters of this class;

(3) Class 1.b.

The uses to be protected in class 1.b waters are domestic water supplies, food processing, the support and propagation of aquatic life, compatible recreation, and aesthetic enjoyment. Public access to waters in this class may be restricted to protect water quality;

(4) Class 2.

The objective of class 2 waters is to protect their use for recreational purposes, propagation of fish and aquatic life, and agricultural and industrial water supplies, shipping, navigation and propagation of shellfish. The uses to be protected in this class of waters are all uses compatible with the protection and propagation of fish, shellfish, and wildlife, and with recreation in and on these waters. These waters shall not act as receiving waters for any discharge which has not

received the best degree of treatment or control compatible with the criteria established for this class. No new sewage discharges shall be permitted within estuaries. No new industrial discharges shall be permitted within estuaries, with the exception of:

- (A) Acceptable non-contact thermal and drydock or marine railway discharges within Pearl Harbor, Oahu;
- (B) Stormwater discharges associated with industrial activities (defined in 40 C.F.R. §122.26(b)(14)) which meet, at the minimum, the basic water quality criteria applicable to all waters as specified in §11-54-04(a), and all applicable requirements specified in Chapter 11-55, Hawaii Administrative Rules, titled "Water Pollution Control; and
- (C) Discharges covered by a National Pollutant Discharge Elimination System general permit, approved by the U.S. Environmental Protection Agency and issued by the Department in accordance with 40 C.F.R. §122.28 and all applicable requirements specified in Chapter 11-55, Hawaii Administrative Rules, titled "Water Pollution Control."

(c) Marine waters.

(1) Class AA.

It is the objective of class AA waters that these waters remain in their natural pristine state as nearly as possible with an absolute minimum of pollution or alteration of water quality from any human-caused source or actions. To the extent practicable, the wilderness character of these areas shall be protected. No zones of mixing shall be permitted in this class:

- (A) Within a defined reef area, in waters of a depth less than 18 meters (ten fathoms); or
- (B) In waters up to a distance of 300 meters (one

thousand feet) off shore if there is no defined reef area and if the depth is greater than 18 meters (ten fathoms).

The uses to be protected in this class of waters are oceanographic research, the support and propagation of shellfish and other marine life, conservation of coral reefs and wilderness areas, compatible recreation, and aesthetic enjoyment. The classification of any water area as Class AA shall not preclude other uses of the waters compatible with these objectives and in conformance with the criteria applicable to them;

(2) Class A.

It is the objective of class A waters that their use for recreational purposes and aesthetic enjoyment be protected. Any other use shall be permitted as long as it is compatible with the protection and propagation of fish, shellfish, and wildlife, and with recreation in and on these waters. These waters shall not act as receiving waters for any discharge which has not received the best degree of treatment or control compatible with the criteria established for this class. No new sewage discharges will be permitted within embayments.

No new industrial discharges shall be permitted within embayments, with the exception of:

- (A) Acceptable non-contact thermal and drydock or marine railway discharges, in the following water bodies:
 - (i) Honolulu Harbor, Oahu;
 - (ii) Barbers Point Harbor, Oahu;
 - (iii) Keehi Lagoon Marina Area, Oahu;
 - (iv) Ala Wai Boat Harbor, Oahu; and
 - (v) Kahului Harbor, Maui.
- (B) Stormwater discharges associated with industrial

activities (defined in 40 C.F.R. §122.26(b)(14)) which meet, at the minimum, the basic water quality criteria applicable to all waters as specified in §11-54-04(a), and all applicable requirements specified in the Chapter 11-55, Hawaii Administrative Rules, titled "Water Pollution Control"; and

- (C) Discharges covered by a National Pollutant Discharge Elimination System general permit, approved by the U.S. Environmental Protection Agency and issued by the Department in accordance with 40 C.F.R. §122.28 and all applicable requirements specified in Chapter 11-55, Hawaii Administrative Rules, titled "Water Pollution Control".

(d) Marine bottom ecosystems.

(1) Class I.

It is the objective of class I marine bottom ecosystems that they remain as nearly as possible in their natural pristine state with an absolute minimum of pollution from any human-induced source. Uses of marine bottom ecosystems in this class are passive human uses without intervention or alteration, allowing the perpetuation and preservation of the marine bottom in a most natural state, such as for nonconsumptive scientific research (demonstration, observation or monitoring only), nonconsumptive education, aesthetic enjoyment, passive activities, and preservation;

(2) Class II.

It is the objective of class II marine bottom ecosystems that their use for protection including propagation of fish, shellfish, and wildlife, and for recreational purposes not be limited in any way. The uses to be protected in this class of marine bottom ecosystems are

all uses compatible with the protection and propagation of fish, shellfish, and wildlife, and with recreation. Any action which may permanently or completely modify, alter, consume, or degrade marine bottoms, such as structural flood control channelization, (dams); landfill and reclamation; navigational structures (harbors, ramps); structural shore protection (seawalls, revetments); and wastewater effluent outfall structures may be allowed upon securing approval in writing from the director, considering the environmental impact and the public interest pursuant to sections 342D-4, 342D-5, 342D-6, and 342D-50, HRS in accordance with the applicable provisions of chapter 91, HRS. [Eff 11/12/82; am and comp 10/6/84; am and comp 04/14/88; am and comp 01/18/90; am and comp OCT 29 1992] (Auth: HRS §§342D-4, 342D-5) (Imp: HRS §§342D-4, 342D-5)

§11-54-04 Basic water quality criteria applicable to all waters. (a) All waters shall be free of substances attributable to domestic, industrial, or other controllable sources of pollutants, including:

- (1) Materials that will settle to form objectionable sludge or bottom deposits;
- (2) Floating debris, oil, grease, scum, or other floating materials;
- (3) Substances in amounts sufficient to produce taste in the water or detectable off-flavor in the flesh of fish, or in amounts sufficient to produce objectionable color, turbidity or other conditions in the receiving waters;
- (4) High or low temperatures; biocides; pathogenic organisms; toxic, radioactive, corrosive, or other deleterious substances at levels or in combinations sufficient to be

toxic or harmful to human, animal, plant, or aquatic life, or in amounts sufficient to interfere with any beneficial use of the water;

- (5) Substances or conditions or combinations thereof in concentrations which produce undesirable aquatic life;
- (6) Soil particles resulting from erosion on land involved in earthwork, such as the construction of public works; highways; subdivisions; recreational, commercial, or industrial developments; or the cultivation and management of agricultural lands.

(b) To ensure compliance with paragraph (a)(4) above, all state waters are subject to monitoring and to the following standards for acute and chronic toxicity and the protection of human health.

(1) As used in this section:

- (A) "Acute Toxicity" means the degree to which a pollutant, discharge, or water sample causes a rapid adverse impact to aquatic organisms. The acute toxicity of a discharge or receiving water is measured using the methods in section 11-54-10, unless other methods are specified by the director.
- (B) "Chronic Toxicity" means the degree to which a pollutant, discharge, or water sample causes a long-term adverse impact to aquatic organisms, such as a reduction in growth or reproduction. The chronic toxicity of a discharge or receiving water is measured using the methods in section 11-54-10, unless other methods are specified by the director.
- (C) "Dilution" means, for discharges through submerged outfalls, the average and minimum values calculated using the models in the EPA publication, Initial Mixing Characteristics of Municipal Ocean Discharges (EPA/600/3-85/073, November, 1985), or in the EPA

publication, Expert System for Hydrodynamic Mixing Zone Analysis of Conventional and Toxic Submerged Single Port Discharges (Cormix 1)

(EPA/600/3-90/073), February, 1990.

- (D) "No Observed Effect Concentration" (NOEC), means the highest percent concentration of a discharge or water sample, in dilution water, which causes no observable adverse effect in a chronic toxicity test. For example, an NOEC of 100 percent indicates that an undiluted discharge or water sample causes no observable adverse effect to the organisms in a chronic toxicity test.

(2) Narrative toxicity and human health standards.

- (A) Acute Toxicity Standards: All state waters shall be free from pollutants in concentrations which exceed the acute standards listed in paragraph (3), below. All state waters shall also be free from acute toxicity as measured using the toxicity tests listed in section 11-54-10, or other methods specified by the director.
- (B) Chronic Toxicity Standards: All state waters shall be free from pollutants in concentrations which on average during any 24-hour period exceed the chronic standards listed in paragraph (3), below. All state waters shall also be free from chronic toxicity as measured using the toxicity tests listed in section 11-54-10, or other methods specified by the director.
- (C) Human Health Standards: All state waters shall be free from pollutants in concentrations which, on average during any 30-day period, exceed the "fish consumption" standards for non-carcinogens in paragraph (3), below. All state waters shall also

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be free from pollutants in concentrations, which on average during any 12 month period, exceed the "fish consumption" standards for pollutants identified as carcinogens in paragraph (3), below.

- (3) Numeric standards for toxic pollutants applicable to all waters. The freshwater standards apply where the dissolved inorganic ion concentration is less than 0.5 parts per thousand; saltwater standards apply above 0.5 parts per thousand. Values for metals refer to the dissolved fraction. All values are expressed in micrograms per liter.

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Pollutant	Freshwater		Saltwater		Fish Consumption
	Acute	Chronic	Acute	Chronic	
Acenaphthene	570	ns	320	ns	ns
Acrolein	23	ns	18	ns	250
Acrylonitrile*	2,500	ns	ns	ns	0.21
Aldrin*	3.0	ns	1.3	ns	0.000026
Aluminum	750	260	ns	ns	ns
Antimony	3,000	ns	ns	ns	13,000
Arsenic	360	190	69	36	ns
Benzene*	1,800	ns	1,700	ns	13
Benzidine*	800	ns	ns	ns	0.00017
Beryllium*	43	ns	ns	ns	0.038
Cadmium	3+	3+	43	9.3	ns
Carbon tetra-chloride*	12,000	ns	16,000	ns	2.3
Chlordane*	2.4	0.0043	0.09	0.004	0.000016
Chlorine	19	11	13	7.5	ns
Chloroethers-					
ethyl(bis-2)*	ns	ns	ns	ns	0.44
isopropyl	ns	ns	ns	ns	1,400
methyl(bis)*	ns	ns	ns	ns	0.00060
Chloroform*	9,600	ns	ns	ns	5.1
Chlorophenol(2)	1,400	ns	ns	ns	ns
Chlorpyrifos	0.083	0.041	0.011	0.0056	ns
Chromium (VI)	16	11	1,100	50	ns
Copper	6+	6+	2.9	2.9	ns
Cyanide	22	5.2	1	1	ns
DDT*	1.1	0.001	0.013	0.001	0.000008
metabolite TDE*	0.03	ns	1.2	ns	ns
Demeton		0.1	ns	0.1	ns

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Pollutant	Freshwater		Saltwater		Fish Consumption
	Acute	Chronic	Acute	Chronic	
Dichloro-					
benzenes ^o	370	ns	660	ns	850
benzidine ^o	ns	ns	ns	ns	0.007
ethane(1,2) ^o	39,000	ns	38,000	ns	79
ethylene(1,1) ^o	3,900	ns	75,000	ns	0.60
phenol(2,4)	670	ns	ns	ns	ns
propane ^g	7,700	ns	3,400	ns	ns
propene(1,3)	2,000	ns	260	ns	4.6
Dieldrin ^o	2.3	0.0019	0.71	0.0019	0.000025
Dinitro					
o-cresol(2,4)	ns	ns	ns	ns	250
toluene ^g	110	ns	200	ns	3.0
Dioxin ^o	0.003	ns	ns	ns	5.0x10 ⁻⁹
Diphenyl-					
hydrazine (1,2)	ns	ns	ns	ns	0.018
Endosulfan	0.22	0.056	0.034	0.0087	52
Endrin	0.18	0.0023	0.037	0.0023	ns
Ethylbenzene	11,000	ns	140	ns	1,070
Fluoranthene	1,300	ns	13	ns	18
Guthion	ns	0.01	ns	0.01	ns
Heptachlor ^o	0.52	0.0038	0.053	0.0036	0.00009
Hexachloro-					
benzene ^o	ns	ns	ns	ns	0.00024
butadiene ^o	30	ns	11	ns	16
cyclohexane-					
alpha ^o	ns	ns	ns	ns	0.010
beta ^o	ns	ns	ns	ns	0.018
technical ^o	ns	ns	ns	ns	0.014
cyclopentadiene	2	ns	2	ns	ns
ethane ^o	330	ns	310	ns	2.9
Isophorone	39,000	ns	4,300	ns	

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Pollutant	Freshwater		Saltwater		Fish Consumption
	Acute	Chronic	Acute	Chronic	
Lead	29+	29+	140	5.6	ns
Lindane ^o	2.0	0.08	0.16	ns	0.020
Malathion	ns	0.1	ns	0.1	ns
Mercury	2.4	0.55	2.1	0.025	0.047
Methoxychlor	ns	0.03	ns	0.03	ns
Mirex	ns	0.001	ns	0.001	ns
Naphthalene	770	ns	780	ns	ns
Nickel	5+	5+	75	8.3	33
Nitrobenzene	9,000	ns	2,200	ns	ns
Nitrophenols ^o	77	ns	1,600	ns	ns
Nitrosamines ^o	1,950	ns	ns	ns	0.41
Nitroso					
dibutylamine-N ^o	ns	ns	ns	ns	0.19
diethylamine-N ^o	ns	ns	ns	ns	0.41
dimethylamine-N ^o	ns	ns	ns	ns	5.3
diphenylamine-N ^o	ns	ns	ns	ns	5.3
pyrrolidine-N ^o	ns	ns	ns	ns	30
Parathion	0.065	0.013	ns	ns	ns
Pentachloro-					
ethanes	2,400	ns	130	ns	ns
benzene	ns	ns	ns	ns	28
phenol	20	13	13	ns	ns
Phenol	3,400	ns	170	ns	ns
2,4-dimethyl	700	ns	ns	ns	ns
Phthalate esters					
dibutyl	ns	ns	ns	ns	50,000
diethyl	ns	ns	ns	ns	590,000
di-2-ethylhexyl	ns	ns	ns	ns	16,000
dimethyl	ns	ns	ns	ns	950,000
Polychlorinated					
biphenyls ^o	2.0	0.014	10	0.03	0.000079

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Pollutant	Freshwater		Saltwater		Fish Consumption
	Acute	Chronic	Acute	Chronic	
Polynuclear aromatic hydrocarbons*	ns	ns	ns	ns	0.01
Selenium	20	5	300	71	ns
Silver	1+	1+	2.3	ns	ns
Tetrachlor-					
ethanes	3,100	ns	ns	ns	ns
benzene(1,2,4,5)	ns	ns	ns	ns	16
ethane(1,1,2,2)*	ns	ns	3,000	ns	3.5
ethylene*	1,800	ns	3,400	145	2.9
phenol(2,3,5,6)	ns	ns	ns	440	ns
Thallium	470	ns	710	ns	16
Toluene	5,800	ns	2,100	ns	140,000
Toxaphene*	0.73	0.0002	0.21	0.0002	0.00024
Tributyltin	ns	0.026	ns	0.01	ns
Trichloro					
ethane(1,1,1)	6,000	ns	10,400	ns	340,000
ethane(1,1,2)*	6,000	ns	ns	ns	14
ethylene*	15,000	ns	700	ns	26
phenol(2,4,6)*	ns	ns	ns	ns	1.2
Vinyl chloride*	ns	ns	ns	ns	170
Zinc	22+	22+	95	86	ns

ns - No standard has been developed.

* - Carcinogen.

+ - The value listed is the minimum standard. Depending upon the receiving water CaCO₃ hardness, higher standards may be calculated using the respective formula in the U. S. Environmental Protection Agency publication Quality Criteria for Water (EPA 440/5-86-001, Revised May 1, 1987).

Note - Compounds listed in the plural in the "Pollutant" column

represent complex mixtures of isomers. Numbers listed to the right of these compounds refer to the total allowable concentration of any combination of isomers of the compound, not only to concentrations of individual isomers.

- (4) The following are basic requirements applicable to discharges to state waters. These standards shall be enforced through effluent limitations or other conditions in discharge permits. The director may apply more stringent discharge requirements to any discharge if necessary to ensure compliance with all standards in paragraph (2), above.

(A) Continuous discharges through submerged outfalls.

The No Observed Effect Concentration (NOEC), expressed as percent effluent, of continuous discharges through submerged outfalls shall not be less than 100 divided by the minimum dilution. In addition, such discharges shall not contain:

- (i) pollutants in 24-hour average concentrations greater than the values obtained by multiplying the minimum dilution by the standards in paragraph (3), above, for the prevention of chronic toxicity.
- (ii) non-carcinogenic pollutants in 30-day average concentrations greater than the values obtained by multiplying the minimum dilution by the standards in paragraph (3), above, for fish consumption.
- (iii) carcinogenic pollutants in 12-month average concentrations greater than the values obtained by multiplying the average dilution by the standards in paragraph (3), above, for fish consumption.

(B) Discharges without submerged outfalls. The survival of test organisms in an undiluted acute toxicity test of any discharge shall not be less than 80 percent. In addition, no such discharge shall contain pollutants in concentrations greater than the standards in paragraph (3), above, for the prevention of acute toxicity to aquatic life. The director may make a limited allowance for dilution for a discharge in this category if it meets the following criteria: the discharge velocity is greater than 3 meters per second; the discharge enters the receiving water horizontally, and; the receiving water depth at the discharge point is greater than zero.

(c) Paragraph (a)(6) above shall be deemed met upon a showing that the land on which the erosion occurred or is occurring is being managed in accordance with soil conservation practices acceptable to the applicable soil and water conservation district and the director, and that a comprehensive conservation program is being actively pursued, or that the discharge has received the best degree of treatment or control, and that the severity of impact of the residual soil reaching the receiving body of water is deemed to be acceptable.

(d) In order to reduce a risk to public health or safety arising out of any violation or probable violation of this chapter, the director may post or order posted any state waters. Posting is the placement, erection, or use of a sign or signs warning people to stay out of, avoid drinking, avoid contact with, or avoid using the water. This posting authority shall not limit the director's authority to post or order posting in any other appropriate case or to take any enforcement action. [Eff 11/12/82; am and comp 10/6/84; am and comp 04/14/88; am and comp 01/18/90; am and comp OCT 29 1992] (Auth: HRS §§342D-4, 342D-5) (Imp: HRS §§342D-4, 342D-5)

§11-54-05 Uses and specific criteria applicable to inland waters: definitions. As used in sections 11-54-05.1 and 11-54-05.2:

"Anchialine pools" means coastal bodies of waters that have no surface connections to the ocean but display both tidal fluctuations and salinity ranges characteristic of fresh and brackish waters, indicating the presence of subsurface connections to the watertable and ocean. Anchialine pools are located in porous substrata (recent lava or limestone) and often contain a distinctive native biota. Deeper anchialine pools may display salinity stratification, and some shallow pools may contain standing water only on the highest tides.

"Coastal wetlands" means natural or man-made ponds and marshes having variable salinity, basin limits, and permanence. These wetlands usually adjoin the coastline but are not surface-connected to the ocean except in rare circumstances. They are usually without tidal fluctuations. Most are characterized by introduced biota, especially fishes.

"Elevated wetlands" means standing water that is always fresh, in more or less indistinct basins such as natural bogs, ponds, and marshes. These wetlands are found in undisturbed areas, mainly remote uplands and forest reserves.

"Estuaries" means characteristically brackish coastal waters in well-defined basins with a continuous or seasonal surface connection to the ocean that allows entry of marine fauna. Estuaries may be either natural, occurring mainly at streams or river mouths; or developed, artificially or strongly modified from the natural state, such as dredged and revetted stream termini.

"Intermittent streams" means fresh waters flowing down altitudinal gradients in definite natural channels only during part of the year.

"Low wetlands" means standing water that is always fresh,

ponds or marshes. These wetlands are found in lowland areas near coasts or in valley termini modified by man. Their origin may be natural or man-made.

"Natural lakes" means standing water that is always fresh, in well-defined natural basins.

"Perennial streams" means fresh waters flowing down altitudinal gradients in definite natural channels, portions of which may be modified. In these streams, flowing water is present all year, though volume may vary. These streams may be continuous, with water flowing to the ocean all year, or interrupted, having flow with ecologically significant bodies of water only in parts of the channel, with seasonal discharge to the ocean.

"Reservoirs" means standing water that is always fresh, in well-defined artificially created impoundments.

"Springs and seeps" means small, perennial, relatively constant fresh water flows not in distinct channels, such as wet films or trickles over rock surfaces, in which the water emanates from elevated aquifers. Springs and seeps may be either stream associated, occurring in deeply cut valleys and contributing to stream flow; or coastal, occurring on coastal cliffs and usually flowing into the ocean.

"Streams" means seasonal or continuous water flowing in all or part of natural channels as a result of either surface water runoff or ground water influx, or both. Streams may be either "perennial" or "intermittent." [Eff 11/12/82; am and comp 10/6/84; am and comp 04/18/88; am and comp 01/18/90; am and comp

OCT 29 1992] (Auth: HRS §§342D-4, 342D-5) (Imp: HRS §§342D-4, 342D-5)

§11-54-05.1 Inland water areas to be protected. (a) Class 1.a.

- (1) All inland waters in preserves, reserves, sanctuaries, and refuges established by the department of land and

natural resources under chapter 195, HRS, or similar reserves for the protection of aquatic life established under chapter 195, HRS.

- (2) All inland waters in national and state parks.
- (3) All inland waters in state or federal fish and wildlife refuges.
- (4) All inland waters which have been officially identified as a unique or critical habitat for threatened or endangered species.
- (5) Waimanu Estuarine Sanctuary (Hawaii); Kilauea and Lumahai estuaries (Kauai).
- (b) Class 1.b - All inland waters in protective subzones designated under chapter 13-2 of the state board of land and natural resources.
- (c) Class 2 - All inland water areas not otherwise classified. Waipio (Hawaii) and Pearl Harbor estuaries are included in this class. [Eff 11/12/82; am and comp 10/6/84; am and comp 04/14/88; am and comp 01/18/90; am and comp OCT 29 1992] (Auth: HRS §§342D-4, 342D-5) (Imp: HRS §§342D-4, 342D-5)

§11-54-05.2 Inland water criteria. (a) Criteria for springs and seeps, natural lakes, reservoirs, low wetlands, coastal wetlands, natural saline lakes, and anchialine pools. Only the basic criteria set forth in section 11-54-04 apply to springs and seeps, natural lakes, reservoirs, low wetlands, coastal wetlands, natural saline lakes, and anchialine pools. Natural lakes, including natural saline lakes, and anchialine pools will be maintained in the natural state through Hawaii's "no discharge" policy for these waters. Waste discharge into these waters is prohibited (see paragraph 11-54-03(b)(1)).

(b) Specific criteria for streams.

(1) Water column criteria for streams shall be as provided in the following table:

Parameter	Geometric mean not to exceed the given value	Not to Exceed the given value more than ten percent of the time	Not to exceed the given value more than two percent of the time
Total Nitrogen (ug N/L)	250.0° 180.0°	520.0° 380.0°	800.0° 600.0°
Nitrate + Nitrite Nitrogen (ug {NO ₃ +NO ₂ }-N/L)	70.0° 30.0°	180.0° 90.0°	300.0° 170.0°
Total Phosphorus (ug P/L)	50.0° 30.0°	100.0° 60.0°	150.0° 80.0°
Total Suspended Solids (mg/L)	20.0° 10.0°	50.0° 30.0°	80.0° 55.0°
Turbidity (N.T.U.)	5.0° 2.0°	15.0° 5.5°	25.0° 10.0°

° Wet season - November 1 through April 30.

° Dry season - May 1 through October 31.

L = liter

N.T.U. = Nephelometric Turbidity Units. A comparison of the intensity of light scattered by the sample under defined conditions with the intensity of light scattered by a standard reference suspension under the same conditions. The higher the intensity of scattered light, the higher the turbidity.

ug = microgram or 0.000001 grams

pH Units - shall not deviate more than 0.5 units from ambient conditions and shall not be lower than 5.5 nor higher than 8.0

Dissolved Oxygen - Not less than eighty percent saturation, determined as a function of ambient water temperature.

Temperature - Shall not vary more than one degree Celsius from ambient conditions.

Specific Conductance - Not more than three hundred micromhos/centimeter.

(2) Bottom criteria for streams:

- (A) Episodic deposits of flood-borne soil sediment shall not occur in quantities exceeding an equivalent thickness of five millimeters (0.20 inch) over hard bottoms twenty-four hours after a heavy rainstorm.
- (B) Episodic deposits of flood-borne soil sediment shall not occur in quantities exceeding an equivalent thickness of ten millimeters (0.40 inch) over soft bottoms twenty-four hours after a heavy rainstorm.
- (C) In soft bottom material in pool sections of streams, oxidation-reduction potential (EH) in the top ten centimeters (four inches) shall not be less than +100 millivolts.
- (D) In soft bottom material in pool sections of streams, no more than fifty percent of the grain size distribution of sediment shall be smaller than 0.125 millimeter (0.005 inch) in diameter.
- (E) The director shall prescribe the appropriate parameters, measures, and criteria for monitoring stream bottom biological communities including their habitat, which may be affected by proposed actions. Permanent benchmark stations may be required where necessary for monitoring purposes. The water quality criteria for this subsection shall be deemed to be met if time series surveys of benchmark stations indicate no relative changes in the relevant biological communities, as noted by biological community indicators or by indicator organisms which may be applicable to the specific site.

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(c) Specific criteria for elevated wetlands: pH units shall not deviate more than 0.5 units from ambient conditions and shall not be lower than 4.5 nor higher than 7.0.

(d) Specific criteria for estuaries.

(1) The following table is applicable to all estuaries except Pearl Harbor:

Parameter	Geometric mean not to exceed the given value	Not to Exceed the given value more than ten percent of the time	Not to exceed the given value more than two percent of the time
Total Nitrogen (ug N/L)	200.00	350.00	500.00
Ammonia Nitrogen (ug NH ₄ -N/L)	6.00	10.00	20.00
Nitrate + Nitrite Nitrogen (ug [NO ₃ +NO ₂]-N/L)	8.00	25.00	35.00
Total Phosphorus (ug P/L)	25.00	50.00	75.00
Chlorophyll a (ug/L)	2.00	5.00	10.00
Turbidity (N.T.U.)	1.50	3.00	5.00

L = liter

N.T.U. = Nephelometric Turbidity Units. A comparison of the intensity of light scattered by the sample under defined conditions with the intensity of light scattered by a standard reference suspension under the same conditions. The higher the intensity of scattered light, the higher the turbidity.

ug = microgram or 0.000001 grams

pH Units - shall not deviate more than 0.5 units from ambient conditions and shall not be lower than 7.0 nor higher than 8.6.

Dissolved Oxygen - Not less than seventy-five percent saturation,

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determined as a function of ambient water temperature and salinity.

Temperature - Shall not vary more than one degree Celsius from ambient conditions.

Salinity - Shall not vary more than ten percent from ambient conditions.

Oxidation - reduction potential (EH) - Shall not be less than -100 millivolts in the uppermost ten centimeters (four inches) of sediment.

The following table is applicable only to Pearl Harbor Estuary.

Parameter	Geometric mean not to exceed the given value	Not to Exceed the given value more than ten percent of the time	Not to exceed the given value more than two percent of the time
Total Nitrogen (ug N/L)	300.00	550.00	750.00
Ammonia Nitrogen (ug NH ₄ -N/L)	10.00	20.00	30.00
Nitrate + Nitrite Nitrogen (ug [NO ₃ +NO ₂]-N/L)	15.00	40.00	70.00
Total Phosphorus (ug P/L)	60.00	130.00	200.00
Chlorophyll a (ug/L)	3.50	10.00	20.00
Turbidity (N.T.U.)	4.00	8.00	15.00

L = liter

N.T.U. = Nephelometric Turbidity Units. A comparison of the intensity of light scattered by the sample under defined conditions with the intensity of light scattered by a standard

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reference suspension under the same conditions. The higher the intensity of scattered light, the higher the turbidity.

ug = microgram or 0.000001 grams.

pH Units - shall not deviate more than 0.5 units from ambient conditions and shall not be lower than 6.8 nor higher than 8.8.

Dissolved Oxygen - Not less than sixty percent saturation, determined as a function of ambient water temperature and salinity.

Temperature - Shall not vary more than one degree Celsius from ambient conditions.

Salinity - Shall not vary more than ten percent from ambient conditions.

Oxidation - Reduction potential (EH) - Shall not be less than -100 millivolts in the uppermost ten centimeters (four inches) of sediment. [Eff 11/12/82; am and comp 10/6/84; am and comp 04/14/88; am and comp 01/18/90; am and comp OCT 29 1992]
(Auth: HRS §§342D-4, 342D-5) (Imp: HRS §§342D-4, 342D-5)

511-54-06 Uses and specific criteria applicable to marine waters. (a) Embayments.

(1) As used in this section:

"Embayments" means land-confined and physically-protected marine waters with restricted openings to open coastal waters, defined by the ratio of total bay volume to the cross-sectional entrance area of seven hundred to one or greater.

"Total bay volume" is measured in cubic meters and "cross-sectional entrance area" is measured in square meters, and both are determined at mean lower low water.

(2) Water areas to be protected.

(A) Class AA.

(i) Hawaii
Puako Bay
Waiulua Bay
Anaehoomalu Bay
Kiholo Bay
Kailua Harbor
Kealahou Bay
Honaunau Bay

Oahu
Waialua Bay
Kahana Bay
Kaneohe Bay
Mahauna Bay

Kauai
Hanalei Bay

(ii) All embayments in preserves, reserves, sanctuaries, and refuges established by the department of land and natural resources under chapter 195 or chapter 190, HRS, or similar reserves for the protection of marine life established under chapter 190, HRS.

(iii) All waters in state or federal fish and wildlife refuges and marine sanctuaries.

(iv) All waters which have been officially identified as a unique or critical habitat for threatened or endangered species.

(B) Class A.

Hawaii
Hilo Bay (inside breakwater)
Kawaihae Boat Harbor
Honokohau Boat Harbor
Keauhou Bay

Mau
Kahului Bay
Lahaina Boat Harbor
Maalaea Boat Harbor

Lanai
Mauela Boat Harbor
Kaunapau Harbor

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Molokai
Hale o Lono Harbor
Kaunakakai Harbor
Kaunakakai Boat Harbor

Oahu
Kaiaka Bay
Paiko Peninsula to Koko Head
Ala Wai Boat Harbor
Kewalo Basin
Honolulu Harbor
Keehi Lagoon
Barbers Point Harbor
Pokai Bay
Heeia Kea Boat Harbor
Waianae Boat Harbor
Haleiwa Boat Harbor
Ko Olina

Kauai
Hanalei Bay
Nawiliwili Bay
Kukuiula Bay
Wahiawa Bay
Hanalei Bay (inside breakwater)
Kikila Boat Harbor
Port Allen Boat Harbor

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(3) The following criteria are specific for embayments. (Note that criteria for embayments differ based on fresh water inflow.)

Parameter	Geometric mean not to exceed the given value	Not to Exceed the given value more than ten percent of the time	Not to exceed the given value more than two percent of the time
Total Nitrogen (ug N/L)	200.00° 150.00°	350.00° 250.00°	500.00° 350.00°
Ammonia Nitrogen (ug NH ₄ -N/L)	6.00° 3.50°	13.00° 8.50°	20.00° 15.00°
Nitrate ± Nitrite Nitrogen (ug [NO ₃ +NO ₂]-N/L)	8.00° 5.00°	20.00° 14.00°	35.00° 25.00°
Total Phosphorus (ug P/L)	25.00° 20.00°	50.00° 40.00°	75.00° 60.00°
Chlorophyll a (ug/L)	1.50° 0.50°	4.50° 1.50°	8.50° 3.00°
Turbidity (N.T.U.)	1.50° 0.40°	3.00° 1.00°	5.00° 1.50°

* "Wet" criteria apply when the average fresh water inflow from the land equals or exceeds one percent of the embayment volume per day.

** "Dry" criteria apply when the average fresh water inflow from the land is less than one percent of the embayment volume per day.

Applicable to both "wet" and "dry" conditions:

pH Units - shall not deviate more than 0.5 units from a value of 8.1, except at coastal locations where and when freshwater from stream, stormdrain or groundwater discharge may depress the

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pH to a minimum level of 7.0.

Dissolved Oxygen - Not less than seventy-five percent saturation, determined as a function of ambient water temperature and salinity.

Temperature - Shall not vary more than one degree Celsius from ambient conditions.

Salinity - Shall not vary more than ten percent from natural or seasonal changes considering hydrologic input and oceanographic factors.

L = liter

N.T.U. = Nephelometric Turbidity Units. A comparison of the intensity of light scattered by the sample under defined conditions with the intensity of light scattered by a standard reference suspension under the same conditions. The higher the intensity of scattered light, the higher the turbidity.

ug = microgram or 0.000001 grams

(b) Open coastal waters.

(1) As used in this section:

"Open coastal waters" means marine waters bounded by the 183 meter or 600 foot (100 fathom) depth contour and the shoreline, excluding bays named in subsection (a);

(2) Water areas to be protected (measured in a clockwise direction from the first-named to the second-named location, where applicable):

(A) Class AA.

- (i) Hawaii - The open coastal waters from Lelewi Point to Waiulaula Point;
- (ii) Maui - The open coastal waters between Nakalele Point and Waihee Point, and between Huelo Point and Puu Olai;
- (iii) Kahoolawe - All open coastal waters surrounding the island;
- (iv) Lanai - All open coastal waters surrounding

the island;

(v) Molokai - The open coastal waters between the westerly boundary of Hale o Lono Harbor to Lamaloa Head. Also, the open coastal waters from Cape Malava to the easterly boundary of Kaunakakai Harbor;

(vi) Oahu - Waimanalo Bay from the southerly boundary of Kaiona Beach Park, and including the waters surrounding Manana and Kaohikaipu Islands, to Makapuu Point. Also, Waialua Bay from Kaiaka Point to Puaena Point, and the open coastal waters along Kaena Point between a distance of 5.6 kilometers (3.5 miles) from Kaena Point towards Makua and 5.6 kilometers (3.5 miles) from Kaena Point toward Mokuleia;

(vii) Kauai - The open coastal waters between Hikimoe Valley and Makahoa Point. Also, the open coastal waters between Makahuena Point and the westerly boundary of Hoai Bay;

(viii) Niihau - All open coastal waters surrounding the island;

(ix) All other islands of the state - All open coastal waters surrounding the islands not classified in this section;

(x) All open waters in preserves, reserves, sanctuaries, and refuges established by the department of land and natural resources under chapter 195 or chapter 190, HRS or similar reserves for the protection of marine life established under chapter 190, HRS, as amended; or in the refuges or sanctuaries established by the U.S. Fish and Wildlife

Service of the National Marine Fisheries
Service;

(B) Class A - All other open coastal waters not otherwise specified.

(3) The following criteria are specific for open coastal waters: (Note that criteria for open coastal waters differ, based on fresh water discharge.)

Parameter	Geometric mean not to exceed the given value	Not to Exceed the given value more than ten percent of the time	Not to exceed the given value more than two percent of the time
Total Nitrogen (ug N/L)	150.00° 110.00°	250.00° 180.00°	350.00° 250.00°
Ammonia Nitrogen (ug NH ₃ -N/L)	3.50° 2.00°	8.50° 5.00°	15.00° 9.00°
Nitrate + Nitrite Nitrogen (ug {NO ₃ +NO ₂ }-N/L)	5.00° 3.50°	14.00° 10.00°	25.00° 20.00°
Total Phosphorus (ug P/L)	20.00° 16.00°	40.00° 30.00°	60.00° 45.00°
Light Extinction Coefficient (k units)	0.20° 0.10°	0.50° 0.30°	0.85° 0.55°
Chlorophyll a (ug/L)	0.30° 0.15°	0.90° 0.50°	1.75° 1.00°
Turbidity (N.T.U.)	0.50° 0.20°	1.25° 0.50°	2.00° 1.00°

* "Wet" criteria apply when the open coastal waters receive more than three million gallons per day of fresh water discharge per shoreline mile.

** "Dry" criteria apply when the open coastal waters receive less than three million gallons per day of fresh water discharge per shoreline mile. Applicable to both "wet" and "dry" conditions:

pH Units - shall not deviate more than 0.5 units from a value of 8.1, except at coastal locations where and when freshwater from stream, stormdrain or groundwater discharge may depress the pH to a minimum level of 7.0.

Dissolved Oxygen - Not less than seventy-five percent saturation, determined as a function of ambient water temperature and salinity.

Temperature - Shall not vary more than one degree Celsius from ambient conditions.

Salinity - Shall not vary more than ten percent from natural or seasonal changes considering hydrologic input and oceanographic factors.

k units = the ratio of light measured at the water's surface to light measured at a particular depth.

L = liter

Light Extinction Coefficient is only required for dischargers who have obtained a waiver pursuant to Section 301(h) of the Federal Water Pollution Control Act of 1972 (33 U.S.C. 1251), as amended, and are required by EPA to monitor it.

N.T.U. = Nephelometric Turbidity Units. A comparison of the intensity of light scattered by the sample under defined conditions with the intensity of light scattered by a standard reference suspension under the same conditions. The higher the intensity of scattered light, the higher the turbidity.

ug = microgram or 0.000001 grams

(c) Oceanic waters.

- (1) Definition - "Oceanic waters" means all other marine waters outside of the 183 meter (600 feet or 100 fathom) depth contour;
- (2) Water areas to be protected - Class A - All oceanic waters;

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(3) The following criteria are specific for oceanic waters:

Parameter	Geometric mean not to exceed the given value	Not to Exceed the given value more than ten percent of the time	Not to exceed the given value more than two percent of the time
Total Nitrogen (ug N/L)	50.00	80.00	100.00
Ammonia Nitrogen (ug NH ₃ -N/L)	1.00	1.75	2.50
Nitrate + Nitrite Nitrogen (ug [NO ₃ +NO ₂]-N/L)	1.50	2.50	3.50
Total Phosphorus (ug P/L)	10.00	18.00	25.00
Chlorophyll a (ug/L)	0.06	0.12	0.20
Turbidity (N.T.U.)	0.03	0.10	0.20

L = liter

N.T.U. = Nephelometric Turbidity Units. A comparison of the intensity of light scattered by the sample under defined conditions with the intensity of light scattered by a standard reference suspension under the same conditions. The higher the intensity of scattered light, the higher the turbidity.

ug = microgram or 0.000001 grams

pH Units - shall not deviate more than 0.5 units from a value of 8.1.

Dissolved Oxygen - Not less than seventy-five percent saturation, determined as a function of ambient water temperature and salinity.

Temperature - shall not vary more than one degree Celsius from

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ambient conditions.

Salinity - Shall not vary more than ten percent from natural or seasonal changes considering hydrologic input and oceanographic factors. [Eff 11/12/82; am and comp 10/6/84; am and comp 04/14/88; am and comp 01/18/90; am and comp OCT 29 1992]
(Auth: HRS §§342D-4, 342D-5) (Imp: HRS §§342D-4, 342D-5)

§11-54-07 Uses and specific criteria applicable to marine bottom types. (a) Sand beaches.

(1) As used in this section:

"Sand beaches" means shoreline composed of the weathered calcareous remains of marine algae and animals (white sand), the weathered remains of volcanic tuff (olivine), or the weathered remains of lava (black sand).

Associated animals are largely burrowers and are related to particle grain size, slope, and color of the beach;

(2) Water areas to be protected:

(A) Class I - All beaches on the Northwestern Hawaiian Islands. These islands comprise that portion of the Hawaiian archipelago which lies northwest of the island of Kauai and is part of the State of Hawaii; including Nihoa Island, Necker Island, French Frigate Shoals, Brooks Banks, Gardiner Pinnacles, Dowsett and Maro Reef, Laysan Island, Lisianski Island, Pearl and Hermes Atoll, Gambia Shoal Kure Atoll;

(B) Class II - All beaches not in Class I;

(3) The following criteria are specific to sand beaches:

(A) Episodic deposits of flood-borne sediment shall not occur in quantities exceeding an equivalent thickness of ten millimeters (0.40 inch) twenty-four hours after a heavy rainstorm;

(B) Oxidation - reduction potential (EH) in the

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uppermost ten centimeters (four inches) of sediment shall not be less than +100 millivolts;

- (C) No more than fifty percent of the grain size distribution of sediment shall be smaller than 0.125 millimeters in diameter.

(b) Lava rock shoreline and solution benches.

(1) As used in this section:

"Lava rock shorelines" means sea cliffs and other vertical rock faces, horizontal basalts, volcanic tuff beaches, and boulder beaches formed by rocks falling from above or deposited by storm waves. Associated plants and animals are adapted to the harsh physical environment and are distinctly zoned to the degree of wave exposure; "Solution benches" means sea level platforms developed on upraised reef or solidified beach rock by the erosive action of waves and rains. Solution benches are distinguished by a thick algal turf and conspicuous zonation of plants and animals;

(2) Water areas to be protected:

(A) Class I - All lava rock shorelines and solution benches in preserves, reserves, sanctuaries, and refuges established by the department of land and natural resources under chapter 195 or chapter 190, HRS, or similar reserves for the protection of marine life established under chapter 190, HRS, as amended; or in refuges or sanctuaries established by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service;

(B) Class II

- (1) All other lava rock shorelines not in Class I;

(ii) The following solution benches:

<u>Mau</u> i	<u>Oahu</u>
Kihai	Diamond Head
Papaula Point	Manana Island
	Makapuu
<u>Kauai</u>	Laie
Near Hanapepe	Kahuku
Salt Ponds	Mokuleia
Milolii	Makua
Nualolo	Makaha
Makaha	Maile
Mahaulepu	Lualualei
Kuhio Beach Park	Barbers Point
(Kukuiula)	

(3) The following criteria are specific to lava rock shorelines and solution benches:

(A) Episodic deposits of flood-borne sediment shall not occur in quantities exceeding an equivalent thickness of five millimeters (0.20 inch) for longer than twenty-four hours after a heavy rainstorm;

(B) The director shall determine parameters, measures, and criteria for bottom biological communities which may be affected by proposed actions. The location and boundaries of each bottom-type class will be clarified when situations require their identification. For example, when a discharge permit is applied for or a waiver pursuant to section 301(h) of the Federal Water Pollution Control Act (33 U.S.C. §1311) is required.

Permanent benchmark stations may be required where necessary for monitoring purposes. The water quality standards for this subsection shall be deemed to be met if time series surveys of benchmark stations indicate no relative changes in the relevant biological communities, as noted by biological community indicators or by indicator organisms which may be applicable to

the specific site.

(c) Marine pools and protected coves.

(1) As used in this section:

"Marine pools" means waters which collect in depressions on sea level lava rock outcrops and solution benches and also behind large boulders fronting the sea. Pools farthest from the ocean have harsher environments and less frequent renewal of water and support fewer animals. Those closest to the ocean are frequently renewed with water, are essentially marine, and support more diverse fauna;

"Protected coves" means small inlets which are removed from heavy wave action or surge;

(2) Water areas to be protected;

(A) Class I.

(i) All marine pools and protected coves in preserves, reserves, sanctuaries, and refuges established by the department of land and natural resources under chapter 195 or chapter 190, HRS, or similar reserves for the protection of marine life established under chapter 190, HRS, as amended; or in refuges or sanctuaries established by the U.S. Fish and Wildlife Service or the National Fisheries Service;

(ii) Hawaii
Honaunau
Kiholo

(B) Class II

Hawaii
Kalapana
Pohakuloa
Kapalaoa
Maenokalele
Kapoho
King's Landing
(Papai)

Hilo
Laleiwi Point
Wailua Bay

Maui
Hana
Kaanee
Napili
Pu'u Olai to Cape
Hanamanioa
Kipahulu

Molokai
Cape Halawa
Kalaupapa
South Coast

Oahu
Diamond Head
Hahione Blowhole to Makapuu
Mokuleia
Kaena Point
Makua
Punaluu

Kauai
Kealia
Mahaulepu
Hanalei
Poipu
Puolo Point

(3) The following criteria are specific to marine pools and protected coves:

- (A) In marine pools and coves with sand bottoms, oxidation - reduction potential (EH) in the uppermost ten centimeters (four inches) of sediment shall not be less than +100 millivolts;
- (B) In marine pools and coves with sand bottoms, no more than fifty percent of the grain size distribution of the sediment shall be smaller than 0.125 millimeters in diameter;
- (C) Episodic deposits of flood-borne soil sediment shall

not occur in quantities exceeding equivalent thicknesses for longer than twenty-four hours following a heavy rainstorm according to the following:

- (i) No thicker than an equivalent of five millimeters (0.20 inch) on hard bottoms (other than living corals);
- (ii) No thicker than an equivalent of ten millimeters (0.40 inch) on soft bottoms;

(D) The director shall determine parameters, measures, and criteria for bottom biological communities which may be affected by proposed actions. Permanent benchmark stations may be required where necessary for monitoring purposes. The water quality standards for this subsection shall be deemed to be met if time series surveys of benchmark stations indicate no relative changes in the relevant biological communities, as noted by biological community indicators or by indicator organisms which may be applicable to the specific site.

(d) Artificial basins.

(1) As used in this section:

"Artificial basins" means dredged or quarried channels or harbors, and harbor-associated submerged structures. Many organisms can attach to the vertical structures, but the soft, shifting sediment bottoms of harbors may only be colonized by a few hardy or transient species.

(2) Class II water areas to be protected are as follows:

(A) Shallow draft harbors:

Hawaii
Wailoa River Boat Harbor
Mahukona Harbor
Keauhou Harbor
Kailua-Kona Harbor
Honokohau Boat Harbor
Kawaihae Boat Harbor

Mau
Maalaea Boat Harbor
Lahaina Boat Harbor
Hana Harbor

Lanai
Manele Boat Harbor
Kaunalapau Harbor

Molokai
Kalaupapa Anchorage
Kaunakakai Small Boat Harbor
Hale o Lono Harbor

Oahu
Heeia Kea Boat Harbor
Kaneohe Marine Corps Air Station
Kaneohe Yacht Club
Hawaii Kai Marina (Kuapa Pond)
Pokai Bay
Waianae Boat Harbor
Keehi Marine Center
La Mariana Sailing Club
Haleiwa Harbor
Makani Kai Marina
Keehi Boat Harbor
Ala Wai Boat Harbor:
Ala Wai Fuel Dock
Hawaii Yacht Club
Waikiki Yacht Club
Ko Olina

Kauai
Naviliwili Small Boat Harbor
Kukuiula Boat Harbor
Kikisala Boat Harbor
Port Allen Boat Harbor

(B) Deep draft commercial harbors:

Hawaii

Kuhio Bay (Hilo Harbor)
Kawaihae Deep Draft Harbor

Maui
Kahului Harbor

Molokai
Kaunakakai Barge Harbor

Oahu
Honolulu Harbor
Barbers Point Harbor
Kewalo Basin

Kauai
Nawiliwili Harbor
Port Allen Harbor

- (3) Specific criterion to be applied - Oxidation - reduction potential (EH) in the uppermost ten centimeters (four inches) of sediment shall not be less than -100 millivolts.
- (e) Reef flats and reef communities.
- (1) As used in this section:
- "Nearshore reef flats" means shallow platforms of reef rock, rubble, and sand extending from the shoreline. Smaller, younger flats project[ed] out as semicircular aprons while older, larger flats form wide continuous platforms. Associated animals are mollusks, echinoderms, worms, crustaceans (many living beneath the surface), and reef-building corals.
- "Offshore reef flats" means shallow, submerged platforms of reef rock and sand between depths of zero to three meters (zero to ten feet) which are separated from the shoreline of high volcanic islands by lagoons or ocean expanses. Dominant organisms are bottom-dwelling algae. Biological composition is extremely variable. There are three types: patch, barrier, and atoll reef flats; quite different from one another structurally. The presence of heavier wave action, water more oceanic in character, and the relative absence of terrigenous influences

distinguish offshore reef flats.

"Protected reef communities" means hard bottom aggregations, including scattered sand channels and patches, dominated by living coral thickets, mounds, or platforms. They are found at depths of ten to thirty meters (thirty-two to ninety-six feet) along protected leeward coasts or in shallow water (up to sea level) in sheltered lagoons behind atoll or barrier reefs and in the calm reaches of bays or coves.

"Wave-exposed reef communities" means aggregations, including scattered sand channels and patches, dominated by corals. They may be found at depths up to forty meters (approximately one hundred thirty feet) along coasts subject to continuous or heavy wave action and surge. Wave-exposed reef communities are dominated biologically by benthic algae, reef-building corals, and echinoderms.

- (2) Water areas to be protected:

(A) Class 1.

- (i) All reef flats and reef communities in preserves, reserves, sanctuaries, and refuges established by the department of land and natural resources under chapter 195 or chapter 190, HRS, or similar reserves for the protection of marine life under chapter 190, HRS, as amended; or in refuges or sanctuaries established by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service;

- (ii) Nearshore reef flats:

<u>Hawaii</u>	<u>Maui</u>
Puako	Honolua
<u>Lanai</u>	<u>Oahu</u>
Northwest Lanai Reef	Hanauma Bay

Molokai
Western Kalaupapa
Southeast Molokai Reef
Honomuni Harbor
Kulaalamihī Fishpond

Kauai
Nualolokai
Hanalei
(Anini to Haena)

(iii) Offshore reef flats:

Moku o Loe (Coconut Island, Kaneohe Bay, Oahu)
Kure Atoll
Pearl and Hermes Atoll
Lisianski Island
Laysan Island
Maro Reef
French Frigate Shoals

(iv) Wave exposed reef communities:

Hawaii

1823 Lava Flow (Punaluu)
1840 Lava Flow (North Puna)
1868 Lava Flow (South Point)
1887 Lava Flow (South Point)
1955 Lava Flow (South Puna)
1960 Lava Flow (Kapoho)
1969 Lava Flow (Apuna Point)
1970 Lava Flow (Apuna Point)
1971 Lava Flow (Apuna Point)
1972 Lava Flow (Apuna Point)
1973 Lava Flow (Apuna Point)

Maui

Hana Bay
Makuleia Bay (Honolua)

Molokini Island

All wave exposed reef communities

Molokai

Moanui Kahinapohaku Waikolu - Kalawao
Halawa Bay

Oahu
Sharks Cove (Pupukea)
Moku Manu (Islands)
Outer Hanauma Bay
Waimea Bay
Kawela Bay
Kahana Bay

Kauai

Ke'e Beach
Poipu Beach
Kipu Beach

Niihau

All wave exposed communities

Lehua (off Niihau)

All wave exposed communities

(v) Protected reef communities:

Hawaii

Puako
Monaunau
Kealakakua
Kiholo
Anaehoomalu
Hapuna
Kahaluu Bay
Keaweula (North Kohala)
Milolii Bay to Keawaiki
Kailua-Kaili (Kona)
Onomea Bay
1801 Lava Flow (Keahole or Kiholo)
1850 Lava Flow (South Kona)
1859 Lava Flow (Kiholo)
1919 Lava Flow (Milolii)
1926 Lava Flow (Milolii)

Maui

Honolua
Ahihi-La Perouse (including 1790 Lava Flow at Cape Kinau)

Molokini Island

All protected reef communities

Lanai
Manele
Mulopoe

Molokai
Southeast Molokai
Kalaupapa
Honomuni Harbor

Kauai
Hoai Bay (Poipu)

Northwestern Hawaiian Islands

Kure Atoll Lagoon
Pearl and Hermes Lagoon
Lisianski Lagoon
Maro Reef Lagoon
French Frigate Shoals Lagoon

(B) Class II.

- (i) Existing or planned harbors may be located within nearshore reef flats showing degraded habitats and only where feasible alternatives are lacking and upon written approval by the director, considering environmental impact and the public interest pursuant to Section 342D-6, HRS.

Hawaii

Blonde Reef (Hilo Harbor)
Kawaihae Small Boat Harbor

Lanai
Manele

Oahu
Hanauma Bay
Moku o Lo
(Coconut Island,
Kaneohe Bay)

Maui

Lahaina Harbor
Kahului Harbor

Molokai

Kaunakakai Harbor
Mala o Lono Harbor
Palaa (2.4 kilometers/1.5 mile, East Pakanaka Fishpond)

Oahu
Keahi Boat Harbor
Ala Moana Reef
Honolulu Harbor
Heeia Harbor
Kaneohe Yacht Club
Ala Wai Harbor
Haleiwa Boat Harbor
Maunalua Bay
Pearl Harbor
Kaneohe Bay
Kahe

All other nearshore reef flats not in Class I;

(ii) Offshore reef flats:

Oahu
Kapapa Barrier Reef
Kaneohe Patch Reefs (Kaneohe Bay)

(iii) All other wave exposed or protected reef communities not in Class I.

- (3) Specific criteria to be applied to all reef flats and reef communities: No action shall be undertaken which would substantially risk damage, impairment, or alteration of the biological characteristics of the areas named herein. When a determination of substantial risk is made by the director, the action shall be declared to be contrary to the public interest and no other permits shall be issued pursuant to chapter 342, HRS.

- (A) Oxidation-reduction potential (EH) in the uppermost ten centimeters (four inches) of sand patches shall not be less than +100 millivolts;

- (B) No more than fifty percent of the grain size distribution of sand patches shall be smaller than 0.125 millimeters in diameter;
- (C) Episodic deposits of flood-borne soil sediment shall not occur in quantities exceeding equivalent thicknesses for longer than twenty-four hours after a heavy rainstorm as follows:
 - (i) No thicker than an equivalent of two millimeters (0.08 inch) on living coral surfaces;
 - (ii) No thicker than an equivalent of five millimeters (0.2 inch) on other hard bottoms;
 - (iii) No thicker than an equivalent of ten millimeters (0.4 inch) on soft bottoms;
- (D) The director shall determine parameters, measures, and criteria for bottom biological communities which may be affected by proposed actions. The location and boundaries of each bottom-type class shall be clarified when situations require their identification. For example, the location and boundaries shall be clarified when a discharge permit is applied for or a waiver pursuant to section 301(h) of the Federal Water Pollution Control Act of 1972 (33 U.S.C. 1251 et seq.) is required. Permanent benchmark stations may be required where necessary for monitoring purposes. The water quality standards for this subsection shall be deemed to be met if time series surveys of benchmark stations indicate no relative changes in the relevant biological communities, as noted by biological community indicators or by indicator organisms which may be applicable to the specific site.

- (f) Soft bottom communities.
- (1) As used in this subsection:

"Soft bottom communities" means poorly described and "patchy" communities, mostly of burrowing organisms, living in deposits at depths between two to forty meters (approximately six to one hundred thirty feet). The particle size of sediment, depth below sea level, and degree of water movement and associated sediment turnover dictate the composition of animals which rework the bottom with burrows, trails, tracks, ripples, hummocks, and depressions.
- (2) Water areas to be protected:

Class II - All soft bottom communities;
- (3) Specific criteria to be applied - Oxidation-reduction potential (EH) in the uppermost ten centimeters (four inches) of sediment should not be less than -100 millivolts. The location and boundaries of each bottom-type class shall be clarified when situations require their identification. For example, the location and boundaries shall be clarified when a discharge permit is applied for or a waiver pursuant to section 301(h) of the Act is required. [Eff 11/12/82; am and comp 10/6/84; am and comp 04/14/88; am and comp 01/18/90; am and comp OCT 29 1992] (Auth: HRS §§342D-4, 342D-5) (Imp: HRS §§342D-4, 342D-5)

§11-54-08 Specific criteria for recreational areas. (a) In inland recreational waters:

- (1) Fecal coliform content shall not exceed a geometric mean of two hundred per one hundred milliliters in ten or more samples collected during any thirty day period and not more than ten percent of the samples shall exceed four hundred per one hundred milliliters in the same period.

- (2) Raw or inadequately treated sewage, sewage for which the degree of treatment is unknown, or other pollutants of public health significance, as determined by the director of health, shall not be present in natural public swimming, bathing or wading areas.
- (b) In marine recreational waters:
- (1) Within 300 meters (one thousand feet) of the shoreline, including natural public bathing or wading areas, enterococci content shall not exceed a geometric mean of seven per one hundred milliliters in not less than five samples which shall be equally spaced at six day intervals or unequally spaced at five, six, seven or eight day intervals, provided that the total period covered is between 25 and 30 days. Consecutive samples shall not be collected on the same day of the week. Marine recreational waters along sections of coastline where enterococci content does not exceed the standard, as shown by the geometric mean test described above, shall not be lowered in quality.
- (2) Marine recreational waters adjacent to sections of coastline receiving stream discharges or stormdrain discharges or in areas of restricted water exchange caused by shore protection structures such as offshore breakwaters and groins, where the standard has been shown by monitoring data to be chronically exceeded, as determined by the geometric mean test, may be posted with signs warning the public that a risk to human health from exposure to dense populations of water-borne microorganisms may exist at those locations. Chronic exceedance of the standard at a location is defined as the condition where more than 50 percent of the geometric means calculated for the preceding 12-month period

exceeded the standard, or, for infrequently sampled stations, the median for the data set from the preceding 12-month period exceeded the standard.

- (3) At locations where sampling is less frequent than five samples per 25 - 30 days, if one sample exceeds the standard by a factor of 10 or more, sampling should be repeated on the schedule described in paragraph (1) above and geometric means calculated until it is possible to determine the cause of the high bacterial counts. The nature of the cause will determine if warning signs may be posted.

- (4) Raw or inadequately treated sewage, sewage for which the degree of treatment is unknown, or other pollutants of public health significance, as determined by the director of health, shall not be present in natural public swimming, bathing or wading areas. [Eff 11/12/82; am and comp 10/6/84; am and comp 04/14/88; am and comp 01/18/90; am and comp OCT 29 1992]
(Auth: HRS §§342D-4, 342D-5) (Imp: HRS §§342D-4, 342D-5)

511-54-09 Zones of Mixing. (a) As used in this section "zones of mixing" means limited areas around outfalls and other facilities to allow for the initial dilution of waste discharges.

(b) Zones of mixing for the assimilation of domestic, agricultural, and industrial discharges which have received the best degree of treatment or control are recognized as being necessary. It is the objective of these limited zones to provide for a current realistic means of control over the placement and manner of discharges or emissions so as to achieve the highest attainable level of water quality or otherwise to achieve the minimum environmental impact considering initial dilution, dispersion, and reactions from substances which may be considered to be pollutants.

- (c) Establishment, renewal, and termination.
- (1) Application for establishment of a zone of mixing shall be made concurrently with any discharge permits whenever applicable and the conditions of a zone of mixing shall be incorporated as conditions of the discharge permits. Every application for a zone of mixing shall be made on forms furnished by the director and shall be accompanied by a complete and detailed description of present conditions, how present conditions do not conform to standards, and other information as the director may prescribe;
- (2) Each application for a zone of mixing shall be reviewed in light of the descriptions, statements, plans, histories, and other supporting information as may be submitted upon the request of the director, and in light of the effect or probable effect upon water quality standards established pursuant to this chapter;
- (3) Whenever an application is approved, the director shall establish the zone of mixing, taking into account the environmental impact, including but not limited to factors such as the protected uses of the body of water, existing natural conditions of the receiving water, character of the effluent, and the adequacy of the design of the outfall and diffuser system to achieve maximum dispersion and assimilation of the treated or controlled waste with a minimum of undesirable or noticeable effect on the receiving water;
- (4) Approval of a zone of mixing shall be made either after a public hearing is held by the director in the county where the source is situated, in accordance with chapters 91 and 92, MRS and the Rules of Practice and Procedures of the department, or after the public notification and comment process duly established for a

- discharge permit in the case when the zone of mixing is being considered concurrently with the discharge permit;
- (5) No zone of mixing shall be established by the director unless the application and the supporting information clearly show that:
- (A) The continuation of the function or operation involved in the discharge by the granting of the zone of mixing is in the public interest;
- (B) The discharge occurring or proposed to occur does not substantially endanger human health or safety;
- (C) Compliance with the existing water quality standards from which a zone of mixing is sought would produce serious hardships without equal or greater benefits to the public; and
- (D) The discharge occurring or proposed to occur does not violate the basic standards applicable to all waters, will not unreasonably interfere with any actual or probable use of the water areas for which it is classified, and has received (or in the case of a proposed discharge will receive) the best degree of treatment or control;
- (6) Any zone of mixing or renewal thereof shall be established within the requirements of this section and for time periods and under conditions consistent with the reasons therefore and within the following limitations:
- (A) If the zone of mixing is established on the grounds that there is no reasonable means known or available for the adequate prevention, control, or abatement of the discharge involved, it shall be allowed only until the necessary means for prevention, control or abatement become practicable, and subject to the taking of any substitute or alternative measures that the director may prescribe. No renewal of a

zone of mixing established under this subsection shall be allowed without a thorough review of known and available means of preventing, controlling, or abating the discharge involved;

- (B) The director may issue a zone of mixing for a period not exceeding five years; and
- (C) Every zone of mixing established under this section shall include, but not be limited to, conditions requiring the applicant to perform appropriate effluent and receiving water sampling including monitoring of bottom biological communities and report the results of each sampling to the director. A program of research to develop reasonable alternatives to the methods of treatment or control in use by the applicant may be required if research is deemed prudent by the director;
- (D) In order to prevent high temperature discharges from violating section 11-54-04(a)(4), no new or increased domestic, industrial, or other controllable source shall discharge at a maximum temperature which will cause temperatures to exceed 3 degrees Celsius above ambient, or 30 degrees Celsius, whichever is less, within one meter of the bottom within a Zone of Mixing. For discharges with or without submerged outfalls, the director may make a limited allowance for higher discharge temperatures if there is satisfactory demonstration that the elevated temperature will not cause damage to the local aquatic community.
- (7) Any zone of mixing established pursuant to this section may be renewed from time to time on terms and conditions and for periods not exceeding five years which would be appropriate on initial establishment of a zone of mixing,

provided that the applicant for renewal had met all of the conditions specified in the immediately preceding mixing, and provided further that the renewal and the zone of mixing established in pursuance thereof shall provide for the discharge not greater in quantity of mass emissions than that attained pursuant to the terms of the immediately preceding zone of mixing at its expiration. Any new zones of mixing or requests for zone of mixing renewals for wastewater treatment plants (WWTP) performing primary treatment shall comply with Section 301(h) of the Federal Water Pollution Control Act of 1972 (33 U.S.C. 1251). No renewal shall be allowed except upon application. Any renewal application shall be made at least one hundred and eighty days prior to the expiration of the zone of mixing;

- (8) No zone of mixing established pursuant to this part shall be construed to prevent or limit the application of any emergency provisions and procedures provided by law;
- (9) The establishment of any zone of mixing shall be subject to the concurrence of the U.S. Environmental Protection Agency;
- (10) Each mixing zone may be subject to revocation, suspension, or modification if, after notice and opportunity for a hearing pursuant to chapter 91, HRS and the Rules of Practice and Procedures of the department, the director determines that the terms specified in chapter 342D-6, HRS have been violated. In taking any action, the director may consider operating records, compliance investigations, or other information regarding discharge quality or impact on receiving waters. The action shall be effected by giving written notice to the permittee, which shall contain the reasons for the action;

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- (11) The director shall be notified within thirty days of the permanent discontinuance of a discharge. The zone of mixing shall terminate thirty days after such notification has been received;
- (12) Upon expiration of the period stated in the designation, the zone of mixing shall automatically terminate and no rights shall become vested in the designee. [Eff 11/12/82; am and comp 10/6/84; am and comp 04/14/88; am and comp 01/18/90; am and comp OCT 29 1992] (Auth: HRS §§342D-4, 342D-5) (Imp: HRS §§342D-4, 342D-5, 342D-6)

§11-54-09.1 Water quality certification. As used in sections 11-54-9.1.01 to 9.1.10:

"Act" means the Clean Water Act Amendments 1977

(33 U.S.C. 1251), et seq.

"Certifying agency" means the department of health.

"License or permit" means any license or permit granted by an agency of the federal government to conduct any activity which may result in any discharge into the navigable waters of the State of Hawaii.

"Licensing or permitting agency" means any agency of the federal government to which application is made for a license or permit.

"Regional administrator" means the administrator of region IX, environmental protection agency.

"Water quality certification" means a statement which asserts that a proposed discharge activity will not violate applicable water quality standards. A water quality certification is required by section 401 of the Act of any applicant for a federal license or permit to conduct any activity, including, but not limited to, the construction or operation of facilities which may result in any discharge into navigable waters of the United States.

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"Water quality standards" means standards established pursuant to section 10(c) of the Act, and state-adopted water quality standards for navigable waters which are not interstate waters. [Eff and comp 04/14/88; am and comp 01/18/90; am and comp OCT 29 1992] (Auth: HRS §§342D-4, 342D-5, 342D-53) (Imp: HRS §§342D-4, 342D-5, 342D-6)

§11-54-09.1.01 Water quality certification: contents of certification. (a) A certification made by the department shall include the following:

- (1) The name and address of the applicant;
 - (2) A statement that the director has either:
 - (A) Examined the application made by the applicant to the licensing or permitting agency (specifically identifying the number or code affixed to such application) and bases its certification upon an evaluation of the information contained in such application which is relevant to water quality considerations; or
 - (B) Examined other information furnished by the applicant, sufficient to permit the director to make the statement described in subparagraph 3;
 - (3) A statement that there is reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards;
 - (4) A statement of any conditions which the director deems necessary or desirable with respect to the discharge of the activity; and
 - (5) Such other information as the director may determine to be appropriate.
- (b) If, after considering the complete application, comments received during the public comment period, the record of a public hearing held pursuant to section 09.1.03 and other information

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and data as the director deems relevant, should the director determine that there is reasonable assurance that applicable water quality standards will not be violated and the best practicable methods of control will be applied to a discharge which is the result of any activity including, but not limited to, the construction and operation of facilities, then the director shall so certify.

(c) The director may modify the certification prior to the issuance of the federal license or permit, after consideration of information presented by the applicant, licensing or permitting agency or other government agencies or interested parties. [Eff and comp 4/14/88; am and comp 01/18/90; am and comp OCT 29 1992 (Auth: HRS §§342D-4, 342D-5, 342D-53) (Imp: HRS §§342D-4, 342I-5, 342D-6)]

§11-54-09.1.02 Water quality certification: contents of application. An applicant for certification shall submit a complete description of the discharge involved in the activity for which certification is sought, with a request for certification signed by the applicant. Such description shall include the following:

- (1) The name and address of the applicant;
- (2) A description of the facility or activity, and of any discharge into state waters which may result from the conduct of any activity including, but not limited to, the construction or operation of the facility, including characteristics of the discharge, and the location or locations at which such discharge may enter state waters, as defined in section 11-54-02;
- (3) If applicable, a description of the function and operation of equipment or facilities to control discharges, including specification of the methods of control to be used;

- (4) The estimated date or dates on which the activity will begin and end and the date or dates on which the discharge(s) will take place;
- (5) If applicable, a description of the methods and means being used or proposed to monitor the quality and characteristics of the discharge and the operation of equipment or facilities employed in the control of the proposed discharges;
- (6) The director may require the submission of additional information after a certification application has been filed, and shall insure that, if a certification application is incomplete or otherwise deficient, processing of the application shall not be completed until such time as the applicant has supplied the information or otherwise corrected the deficiency. The director shall notify the applicant, in writing, within sixty days of the submission of an application, if an application is incomplete or otherwise deficient. A description of the type of additional information necessary to complete the application or correct the deficiency will be included with such a written notice. Failure to provide additional information or to correct a deficiency shall be sufficient grounds for denial of certification;
- (7) The applicant will be informed, in writing, by the director, when a certification application is considered to be complete. The director shall act on a request for certification within a period which shall not exceed one year;
- (8) The applicant is required to notify the department, in writing, of changes which may affect the application and certification process;
- (9) Every applicant for water quality certification shall pay

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a filing fee of \$100. This filing fee shall be submitted with the water quality certification application and shall not be refunded nor applied to any subsequent water quality certification application following final action of denial of a water quality certification application.

(A) Fees shall be made payable to the State of Hawaii;

(B) Any federal, state or county government agency shall be exempt from paying any filing fees.

[Eff and comp 04/14/88; am and comp 01/18/90; am and comp OCT 29 1992] (Auth: HRS §§342D-4, 342D-5, 342D-53)
(Imp: HRS §§342D-4, 342D-5, 342D-6)

§11-54-09.1.03 Water quality certification: notice and hearing. The director may, upon request or otherwise, provide the opportunity for public comment or hearing(s) or both to consider the issuance of water quality certification. A notice shall be published in accordance with chapters 91 and 92, HRS. The director shall inform the applicant, in writing, that such action has been taken. All publication costs related to public notification(s) shall be paid by the applicant to the necessary and appropriate newspaper agency(ies) prior to publication date. Failure to do so may result in a delay in the certification process. [Eff and comp 04/14/88; am and comp 01/18/90; am and comp OCT 29 1992] (Auth: HRS §§342D-4, 342D-5, 342D-53)
(Imp: HRS §§342D-4, 342D-5, 342D-6)

§11-54-09.1.04 Water quality certification: waiver. If the director fails or refuses to act on a request for certification within a reasonable period of time (which shall not exceed one year) after receipt of a complete application, then the certification requirements of this section shall be waived with respect to federal applications.

If the discharge in question is the result of one of the

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activities which receives a nationwide permit for the discharge of dredge and fill materials, thereby fulfilling specific conditions of that permit pursuant to 33 C.F.R. §330.4, §330.5, §330.6 and Appendix A to §330, then the director will determine, on a case-by-case basis, which projects are considered to be minor and non-controversial. Certification requirements of this section shall be waived for minor and non-controversial activities within one year of the receipt of a completed application. [Eff and comp 04/14/88; am and comp 01/18/90; am and comp OCT 29 1992] (Auth: HRS §§342D-4, 342D-5, 342D-53)
(Imp: HRS §§342D-4, 342D-5, 342D-6)

§11-54-09.1.05 Water quality certification: adoption of new water quality standards. (a) In any case where:

- (1) A license or permit was issued without certification due to the absence of applicable water quality standards;
- (2) Water quality standards applicable to the waters into which the licensed or permitted activity may discharge are subsequently established before the activity is completed;
- (3) The director determines that such uncertified activity is violating water quality standards;

the director shall then notify the licensee or permittee of such violation. If the licensee or permittee fails within one hundred eighty days of the date of such notice to cease the violation, then the director shall notify the licensing or permitting agency that the licensee or permittee has failed to comply with such standards and that suspension of the applicable license or permit pursuant to section 401 of the Act is appropriate.

(b) Where a license or permit is suspended pursuant to subsection (a) and where the licensee or permittee subsequently takes action which in the director's opinion will not result in violating applicable water quality standards, the director shall

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then notify the licensing or permitting agency that there is reasonable assurance that applicable water quality standards will not be violated.

(c) This section shall not preclude the department from taking other enforcement action authorized by law. [Eff and comp 04/14/88; am and comp 01/18/90; am and comp OCT 29 1992] (Auth: HRS §§342D-4, 342D-5, 342D-53) (Imp: HRS §§342D-4, 342D-5, 342D-6)

§11-54-09.1.06 Water quality certification: inspection of facility or activity before operation. Where any facility or activity has received certification pursuant to section 09.1.04 in connection with the issuance of a license or permit for construction, and where such facility or activity is not required to obtain an operating license or permit, the director, prior to the initial operation of such facility or activity, shall be afforded the opportunity to inspect such facility or activity for the purpose of determining if the manner in which such facility or activity will be operated or conducted will violate applicable water quality standards. [Eff and comp 04/14/88; am and comp 01/18/90; am and comp OCT 29 1992] (Auth: HRS §§342D-4, 342D-5, 342D-53) (Imp: HRS §§342D-4, 342D-5, 342D-6)

§11-54-09.1.07 Water quality certification: notification to licensing or permitting agency. If the director, after an inspection pursuant to section 09.1.06 determines that operation of the proposed facility or activity will violate applicable water quality standards, the director shall so notify the applicant and the licensing or permitting agency. [Eff and comp 04/14/88; am and comp 01/18/90; am and comp OCT 29 1992] (Auth: HRS §§342D-4, 342D-5, 342D-53) (Imp: HRS §§342D-4, 342D-5, 342D-6)

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§11-54-09.1.08 Water quality certification: termination or suspension. Where a licensing or permitting agency, following a public hearing, suspends a license or permit after receiving the director's notice and recommendation pursuant to section 09.1.07, the applicant may submit evidence to the director, that the facility or activity has been modified so as not to violate applicable water quality standards. If the director determines that the applicable water quality standards have not been violated, the director shall so notify the licensing or permitting agency. [Eff and comp 04/14/88; am and comp 01/18/90; am and comp OCT 29 1992] (Auth: HRS §§342D-4, 342D-5, 342D-53) (Imp: HRS §§342D-4, 342D-5, 342D-6)

§11-54-09.1.09 Water quality certification: review and advice. The director may, and upon request shall, provide licensing and permitting agencies with determinations, definitions and interpretations to the meaning and content of state water quality standards. The director may, and upon request shall, also advise licensing and permitting agencies as to the status of compliance by dischargers with the conditions and requirements of applicable water quality standards. [Eff and comp 04/14/88; am and comp 01/18/90; am and comp OCT 29 1992] (Auth: HRS §§342D-4, 342D-5, 342D-53) (Imp: HRS §§342D-4, 342D-5, 342D-6)

§11-54-10 Water quality analyses. (a) Laboratory analysis shall be performed by a laboratory approved by the department.

(b) Where applicable, analysis to determine compliance with these rules shall be by:

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Parameter

Sample Collection
(Phytoplankton and other
Bioassays)

Sample Preservation and
Holding Time,
Bacteriological and
Chemical Methodology

Reference

Standard Methods for the
Examination of Water and Waste
Water, seventeenth edition, APHA

"Guidelines Establishing Test
Procedures for Analysis of
Pollutants," Federal Register,
October 26, 1984 (40 CFR 136) and
"Technical Amendments," Federal
Register, June 30, 1986 (40 CFR
136).

"A Manual of Chemical and
Biological Methods for Seawater
Analysis" T.R. Parsons, Y. Maity,
and C.M. Lalli, 1984, Pergamon
Press, New York.

"Methods of Seawater Analysis",
2nd, Revised and Extended Edition,
ed. by K. Grashof, M. Erhardt, K.
Kremling, 1983. Verlag Chemie,
Weinheim, Germany.

Toxicity Test

EPA/600/4-91/002 Short-Term Methods
For Estimating the Chronic Toxicity
of Effluents and Receiving Waters
to Freshwater Organisms, [December,
1985,], 3rd ed., 1991.

or:

EPA/600/4-90-027 Methods for
Measuring the Acute Toxicity of
Effluents to Aquatic Organisms. 4th
ed. Cincinnati, Ohio, EMSL, 1991.

or:

EPA-600/4-91/003, Short-Term
methods for Estimating the Chronic
Toxicity of Effluents and Receiving
Waters to Marine and Estuarine
Organisms. 2d.ed., ORD, Cincinnati,
Ohio, 1991.

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Quality Control
(Bacteriological and
Biology) and Chemistry

EPA/600/4-79-019, Handbook for
Analytical Quality Control in Water
and Wastewater Laboratories, March
1979,

or:

As otherwise previously specified
or approved by the director.

[Eff 11/12/82; am and comp 10/6/84; am and comp 04/14/88; am and
comp 01/18/90; am and comp OCT 29 1992] (Auth: HRS §§342D-4,
342D-5) (Imp: HRS §§342D-4, 342D-5)


§11-54-11 Revision. These water quality criteria are based
upon the best currently available data. Studies made in
connection with the implementation program may suggest
improvements to this chapter. For this reason, the chapter will
be subject to periodic review and, where necessary, to change.
Any change will be made only after public hearing, held in
compliance with chapter 91, HRS and the Rules of Practice and
Procedures of the department. [Eff 11/12/82; am and comp 10/6/84;
am and comp 04/14/88; am and comp 01/18/90; am and comp
OCT 29 1992] (Auth: HRS §§342D-4, 342D-5)
(Imp: HRS §§342D-4, 342D-5)

§11-54-12 Severability. If any provisions of this chapter,
or the application thereof to any person or circumstances, is
held invalid, the invalidity does not affect other provisions or
application of this chapter which can be given effect without the
invalid provision or application, and to this end the provisions
of this chapter are severable." [Eff 11/12/82; am and comp
10/6/84; am and comp 04/14/88; am and comp 01/18/90; am and comp
OCT 29 1992] (Auth: HRS §342D-4) (Imp: HRS §342D-4)

54-66

Amendments to and compilation of Chapter 11-54 Hawaii Administrative Rules, titled Water Quality Standards, on the summary page dated September 11, 1992, were adopted today, following public hearings on Maui on August 4, 1992, on Oahu on August 5, 1992, on Kauai on August 6, 1992, on Hawaii in Hilo on August 11, 1992, and in Captain Cook on August 12, 1992, after public hearing notice was given on June 16, 1992, in the Honolulu Advertiser, the Hawaii Tribune-Herald, West Hawaii Today, the Garden Isle and the Maui News.

The amendments to and compilation of Chapter 11-54, Hawaii Administrative Rules, shall take effect ten days after filing with the Office of the Lieutenant Governor.


JOHN C. LEWIN, M.D.
Director
Department of Health

SEP 21 1992

Dated: _____

APPROVED:

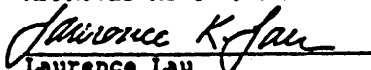


John Waihee III
Governor
State of Hawaii

OCT 16 1992

Dated: _____

APPROVED AS TO FORM:


Laurence Lau
Deputy Attorney General

Filed: OCT 19 1992

Effective Date: OCT 29 1992